

09618380

1600

#17

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/618,380A

DATE: 12/27/2002
TIME: 14:15:51

Input Set : A:\118234920US.ST25.txt
Output Set: N:\CRF4\12272002\I618380A.raw

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P.6

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3 <110> APPLICANT: Weiner, George
4     Gingrich, Roger
5     Link, Brian
6     Tso, J. Yun
8 <120> TITLE OF INVENTION: HUMANIZED ANTIBODIES AGAINST CD3
10 <130> FILE REFERENCE: 011823-004920US
12 <140> CURRENT APPLICATION NUMBER: US 09/618,380A
13 <141> CURRENT FILING DATE: 2000-07-18
15 <150> PRIOR APPLICATION NUMBER: US 08/397,411
16 <151> PRIOR FILING DATE: 1995-03-01
18 <150> PRIOR APPLICATION NUMBER: US 07/859,583
19 <151> PRIOR FILING DATE: 1992-03-27
21 <160> NUMBER OF SEQ ID NOS: 14
23 <170> SOFTWARE: PatentIn version 3.1
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 107
27 <212> TYPE: PRT
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Light chain of Humanized 1D10 Ab minus signal sequence
33 <400> SEQUENCE: 1
35 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
36 1           5           10          15
39 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr
40 20          25          30
43 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
44 35          40          45
47 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
48 50          55          60
51 Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
52 65          70          75          80
55 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
56 85          90          95
59 Pro Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
60 100         105
63 <210> SEQ ID NO: 2
64 <211> LENGTH: 107
65 <212> TYPE: PRT
66 <213> ORGANISM: Mus sp.
68 <400> SEQUENCE: 2
70 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Val Gly
71 1           5           10          15
74 Glu Thr Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr

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75          20          25          30
78 Leu Ala Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Val
79          35          40          45
82 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Thr Ser Arg Phe Ser Gly
83          50          55          60
86 Ser Gly Ser Gly Lys Gln Phe Ser Leu Lys Ile Asn Ser Leu Gln Pro
87 65          70          75          80
90 Glu Asp Phe Gly Asn Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
91          85          90          95
94 Pro Phe Gly Gly Thr Lys Leu Glu Ile Lys
95          100         105
98 <210> SEQ ID NO: 3
99 <211> LENGTH: 116
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Heavy chain of Humanized 1D10 Ab minus signal sequence
106 <400> SEQUENCE: 3
108 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
109 1          5          10          15
112 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
113          20          25          30
116 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
117          35          40          45
120 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
121          50          55          60
124 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
125 65          70          75          80
128 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
129          85          90          95
132 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
133          100         105         110
136 Thr Val Ser Ser
137          115
140 <210> SEQ ID NO: 4
141 <211> LENGTH: 116
142 <212> TYPE: PRT
143 <213> ORGANISM: Mus sp.
145 <400> SEQUENCE: 4
147 Gln Val Gln Leu Lys Gln Ser Gly Pro Gly Leu Val Gln Pro Ser Gln
148 1          5          10          15
151 Ser Leu Ser Ile Thr Cys Thr Gly Ser Gly Phe Ser Leu Thr Asn Tyr
152          20          25          30
155 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Leu
156          35          40          45
159 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
160          50          55          60
163 Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Phe
164 65          70          75          80

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167 Lys Met Asn Ser Leu Gln Ala Ala Asp Thr Ala Met Tyr Tyr Cys Ala
 168 85 90 95
 171 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
 172 100 105 110
 175 Thr Val Ser Ser
 176 115
 179 <210> SEQ ID NO: 5
 180 <211> LENGTH: 214
 181 <212> TYPE: PRT
 182 <213> ORGANISM: Artificial Sequence
 184 <220> FEATURE:
 185 <223> OTHER INFORMATION: Complete light chain of Humanized 1D10 Ab
 187 <400> SEQUENCE: 5
 189 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 190 1 5 10 15
 193 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr
 194 20 25 30
 197 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
 198 35 40 45
 201 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
 202 50 55 60
 205 Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 206 65 70 75 80
 209 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
 210 85 90 95
 213 Pro Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
 214 100 105 110
 217 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 218 115 120 125
 221 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 222 130 135 140
 225 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 226 145 150 155 160
 229 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 230 165 170 175
 233 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 234 180 185 190
 237 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 238 195 200 205
 241 Phe Asn Arg Gly Glu Cys
 242 210
 245 <210> SEQ ID NO: 6
 246 <211> LENGTH: 273
 247 <212> TYPE: PRT
 248 <213> ORGANISM: Artificial Sequence
 250 <220> FEATURE:
 251 <223> OTHER INFORMATION: Fd-jun in F(ab'-zipper)2 of humanized 1D10 antibody
 253 <400> SEQUENCE: 6
 255 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

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Input Set : A:\118234920US.ST25.txt

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256 1 5 10 15
 259 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
 260 20 25 30
 263 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 264 35 40 45
 267 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
 268 50 55 60
 271 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
 272 65 70 75 80
 275 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 276 85 90 95
 279 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
 280 100 105 110
 283 Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
 284 115 120 125
 287 Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
 288 130 135 140
 291 Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
 292 145 150 155 160
 295 Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
 296 165 170 175
 299 Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
 300 180 185 190
 303 Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
 304 195 200 205
 307 Lys Val Asp Lys Lys Glu Val Pro Lys Ser Cys Asp Lys Thr His Thr
 308 210 215 220
 311 Cys Pro Pro Cys Lys Cys Pro Ala Gly Gly Arg Ile Ala Arg Leu Glu
 312 225 230 235 240
 315 Glu Lys Val Lys Thr Leu Lys Ala Gln Asn Ser Glu Leu Ala Ser Thr
 316 245 250 255
 319 Ala Asn Met Leu Arg Glu Gln Val Ala Gln Leu Ala Gln Lys Val Met
 320 260 265 270
 323 Asn
 327 <210> SEQ ID NO: 7
 328 <211> LENGTH: 446
 329 <212> TYPE: PRT
 330 <213> ORGANISM: Artificial Sequence
 332 <220> FEATURE:
 333 <223> OTHER INFORMATION: Complete heavy chain of Humanized 1D10 Ab
 335 <400> SEQUENCE: 7
 337 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 338 1 5 10 15
 341 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
 342 20 25 30
 345 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 346 35 40 45
 349 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
 350 50 55 60

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353 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
 354 65 70 75 80
 357 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 358 85 90 95
 361 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
 362 100 105 110
 365 Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
 366 115 120 125
 369 Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
 370 130 135 140
 373 Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
 374 145 150 155 160
 377 Ala Leu Thr Ser Gly Val His Phe Thr Pro Ala Val Leu Gln Ser Ser
 378 165 170 175
 381 Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
 382 180 185 190
 385 Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
 386 195 200 205
 389 Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
 390 210 215 220
 393 Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
 394 225 230 235 240
 397 Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 398 245 250 255
 401 Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 402 260 265 270
 405 Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 406 275 280 285
 409 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 410 290 295 300
 413 Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 414 305 310 315 320
 417 Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 418 325 330 335
 421 Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 422 340 345 350
 425 Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 426 355 360 365
 429 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 430 370 375 380
 433 Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 434 385 390 395 400
 437 Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 438 405 410 415
 441 Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 442 420 425 430
 445 Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 446 435 440 445
 449 <210> SEQ ID NO: 8

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/618,380A

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Input Set : A:\118234920US.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; Xaa Pos. 2,3,4,5,6,7